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|-----------------|-------------|----------------------|---------------------|------------------|
| 10/567,483 | 05/21/2007 | Tae-Won Son | CS4-003 | 8689 |

21567 7590 01/23/2008
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| EXAMINER |
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LAMM, MARINA

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| ART UNIT | PAPER NUMBER |
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1617

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01/23/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/567,483

Applicant(s)

SON ET AL.

Examiner

Marina Lamm

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>2/6/06; 7/27/07</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claims 1-8 are pending in this application filed 5/21/07, which is a 371 of PCT/KR04/02034, filed 9/13/04, which claims priority to Korean application No. 1020030056557, filed 8/14/03.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Son et al. (US 2005/0037079).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Son et al. teach a temperature-sensitive hydrogel containing 1-10% of a branched gel polymer (e.g. galactomannan, glucomannan, guar gum, locust gum); 0.5-

5% of a electrolyte gel polymer (e.g. agar, algin, carrageenan, xanthan, gelan); 0.5-5% of skin-friendly ingredients (e.g. chitosan, proteoglycan, elastin, collagen, hyaluronic acid); 1-10% of a natural biomaterial (e.g. aloe extract); 3-30% of a polyol (e.g. propylene glycol, glycerin); 1-10% of a functional additive (e.g. kojic acid, alpha-hydroxy acids, retinol); and 30-93% of water. See Abstract; pp. 2-3. The hydrogel of Son et al. transforms into a fluid state at 10-50⁰C. See Abstract. The reference teaches the claimed method of making the hydrogel. See [0024]-[0026].

Thus, Son et al. teach each and every limitation of Claims 1-8.

3. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kross (US 6,664,301).

Kross teaches cosmetic hydrogels containing gelling agents such as carrageenan, xanthan gum, locust bean gum gellan and/or agar. See col. 5, lines 37-40. The hydrogels contain 0.1-45% of glycols such as propylene glycol and/or glycerin, and

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other functional ingredients such as preservatives, alpha-hydroxy acids, collagen, peptides, herbal extracts (e.g. aloe vera) and water. See col. 4, lines 64-67; col. 6-7; Example 1. The hydrogels of Kross are useful for hydrating the skin. See col. 5, lines 5-14. The hydrogels of Kross are prepared by (a) mixing the gelling agents and dispersing the mixture in the mixture of polyols and preservative and then adding water to 100%; (b) heating the mixture to 82-85⁰C and mixing it; and (c) cooling the resulting gel. See Examples 1, 4-6. With respect to the limitation "hydrogel is transformed into a fluid state at 10-5⁰ C", while the reference is silent on that, it clearly teaches the claimed combination of the gelling agents and the fact that the hydrogels are used to hydrate the skin as discusses above. While generally teaching the concentration of the ingredients and exemplifying the claimed concentrations of polyols and water (see col. 7, lines 10-33; Examples), the reference does not explicitly teach the claimed concentration of the gelation polymers and additives. However, determination of optimal or workable concentrations of the ingredients by routine experimentation is obvious absent showing of criticality of the claimed concentrations. One having ordinary skill in the art would have been motivated to do this to obtain the desired gelling properties of the composition as well as the desired cosmetic effect. With respect to Claim 8, the reference does not teach the exact order in which the ingredients are added. However, this is an obvious modification of the prior art. It would have been *prima facie* obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Kross such that to add plant extracts and other cosmetic

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additives (e.g. alpha-hydroxy acids or vitamins) as the last step of the process in order to protect such additives from prolonged exposure to high temperatures and thus, preserve the thermo-labile active ingredients.

Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

Conclusion

6. No claims are allowed at this time.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marina Lamm whose telephone number is (571) 272-0618. The examiner can normally be reached on Mon-Fri from 11am to 7pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan, can be reached at (571) 272-0629.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Marina Lamm, M.S., J.D.
Patent Examiner
1/17/08

A handwritten signature in black ink, appearing to read "Marina Lamm", written in a cursive style.

EXAMINER'S SIGNATURE
MARINA LAMM, M.S., J.D.